

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

PLANT EQUIPMENT, INC.,

*Plaintiff,*

v.

INTRADO, INC.,

*Defendant.*

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Case No. 2:09-CV-395-JRG

**MEMORANDUM OPINION AND ORDER**

Before the Court is the construction of the parties' disputed claims, which the Court has preliminarily addressed in its March 1, 2012 Order (Dkt. No. 117) and which preliminary order is superseded by this expanded claim construction opinion and order. The Court will first briefly address the patent-in-suit and then turn to the merits of the claim construction issues.

**I. BACKGROUND OF THE PATENT-IN-SUIT**

On December 22, 2009, Plaintiff Plant Equipment, Inc. ("Plant") brought this action against Defendant Intrado, Inc. ("Intrado"), alleging infringement of U.S. Patent No. 6,744,858 ("the '858 Patent") (the "patent-in-suit"). Plant is the owner of the '858 Patent, which describes a system and method for routing incoming calls through the use of a central data manager over a wide network to multiple call centers having multiple remote terminals. Intrado provides technology for the infrastructure regarding 9-1-1 emergency calls that delivers millions of such emergency calls each year throughout the United States. Generally, Plant accuses Intrado's 9-1-1 network, called the Intelligent Emergency Network, of infringing the '858 Patent.

As stated, the '858 Patent concerns routing of emergency services communications, such as 9-1-1 calls, among a number of call center operator terminals. As in a conventional 9-1-1 emergency services infrastructure, an emergency call is initiated and placed by a caller to a particular Public Safety Answering Point ("PSAP") or call center, based on Automatic Location Information ("ALI") including

names and addresses of service agencies that provide emergency services (such as police, fire, and ambulance services) to the caller's location. The ALI information is derived from database information that correlates with the caller's Automatic Number Identification ("ANI").

As disclosed in the '858 Patent, a central data manager receives an incoming emergency call and operates via a Wide Area Network ("WAN") to route the call to a particular PSAP or call center. Through use of the WAN, a single central data manager can serve multiple call centers in a shared arrangement and thereby avoid communicating over telephone company switching circuits. A feature of a preferred embodiment of the '858 Patent is the use of Voice over Internet Protocol ("VoIP") as a means of internet telephony, which can accommodate both voice and data over a communication path using a TCP/IP network protocol.

The disclosed central data manager is implemented using a server, which is a type of computer having a database. Information unique to each of several call centers is placed on a single, shared server. However, to allow for privacy and for performance purposes, the database is "partitioned" to provide distinct and independently accessible databases for each call center serviced by the central data manager. This "centralized" arrangement stands in contrast to a conventional emergency services communication system wherein an ANI/ALI database is located at each call center in a distributed arrangement, and each call center has its own computer and resident database. One of the primary advantages of the '858 Patent is that it envisions a process that avoids this obvious duplication of capital and equipment.

The ANI/ALI database is an organized collection of related information stored as multiple records wherein each ANI record has fields of ALI information. In the context of the '858 Patent, database telephone numbers (the ANI) along with corresponding information such as caller's name and address, as well as contact information for emergency service agencies that service the caller's location (the ALI) form a record. This correlation between numbers and information means the ANI/ALI database is a "relational" database.

In such a "relational" database, database management system software ("DBMS") runs on the centralized server computer. The DBMS is positioned between the physical database containing the

actual record data (i.e., data that is physically stored on a hardware storage device) and the user. The DBMS handles user requests for access to the data stored on the hardware storage device. Through the DBMS, a user of the relational database is provided with a conceptual view of the data that is removed from the data storage at the hardware level. The term “database” is correctly applied to only data stored on a hardware storage device and not to a DBMS or the views of data presented by it.

In accordance with the ‘858 Patent, the operator terminals within multiple and disparate call centers are interfaced to a WAN. Multiple call centers share the database server of the central data manager. While the database system architecture of such an arrangement was previously known, the ‘858 Patent adapts this architecture to emergency services communication systems having a plurality of call centers.

The ‘858 Patent teaches to preferably use a communications network operating on the basis of a TCP/IP network protocol, particularly VoIP internet telephony, as the WAN. Also, the ‘858 Patent teaches the use of a database that permits each call center to access the server database without accessing the data of any other call center sharing the server. Such database organization allows for privacy of individual call center data and for data security through database access controls that prevent unauthorized access.<sup>1</sup>

## II. LEGAL PRINCIPLES

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a

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<sup>1</sup> For a more detailed explanation of the Court’s understanding of the technology in question and underlying concepts, see the Appendix to this Memorandum Opinion and Order.

written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's invention. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court's claim construction analysis is substantially guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (emphasis added) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to and intended to be read by others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

*Phillips*, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the

suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319-24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

### III. CONSTRUCTION OF AGREED TERMS

The parties have agreed to the construction of the following terms:

Claim Term/Phrase/Clause	Agreed Definition
“remote”	“situated at a distance”
“along with”	“together with”
“associated with”	“identified with or having a connection to”
“database”	“an organized collection of information stored in one or more computerized files”

(See Dkt. No. 108, Ex. 1.) In view of the parties’ agreements on the proper construction of each of the identified terms, the Court **ADOPTS AND APPROVES** the parties’ agreed constructions.

#### IV. CONSTRUCTION OF DISPUTED TERMS

##### A. “database that is partitioned” / “partitioned database” (Claims 1 and 3)

Plant’s Construction	Intrado’s Construction
a database organized in such a way that individual data may be accessed without accessing other data in the database, and which data cannot be accessed by unauthorized users	a database with tables that have been divided into smaller tables, or partitions

The first disputed terms are “database that is partitioned” and “partitioned database,” found in claims 1 and 3. The parties dispute how the database in question is partitioned. Plant argues that the specification does not describe “partitioning” in the traditional sense, either logically or physically, but relates to an ability to access data. Plant argues that, according to the specification, database partitioning allows sharing of a single, centralized server by multiple call centers, but that call logs for a particular call center can be accessed for display without having to also include the call logs for the other call centers sharing the same server. This database partitioning allows for privacy and security of individual call center data. Plant reaches the conclusion that if individual data is organized or partitioned such that it can be accessed by multiple call centers while maintaining privacy, that data cannot be accessed by unauthorized users.

Intrado argues for a tradition definition of partition and argues that the plain and ordinary meaning of “partition” is to divide into parts. When applied to a database, Intrado argues that the term means that a database table (including rows and columns of information) is divided into smaller tables or partitions.

This Court does not agree entirely with either of the parties’ proposed constructions. First, the Court finds that, for completeness, the definition of the terms in question should include a definition of “database” as well as “partition.” In the context of the ‘858 Patent claims, a “database” is an organization of call center data. Further, because the database is part of the central data manager server, the term

“database” refers to data content in computer data storage. Thus, the term “database” means and the Court hereby construes it to be: “an organization of call center data in computer data storage.”

Turning to the definition of “partition,” the ‘858 Patent specification describes that the partitioned database of a shared server is set up to service multiple call centers and makes data for each call center independently accessible. *See* col. 6:41-42, 55-58 and col. 6:65- col.7:3.<sup>2</sup> In contrast to such independent accessibility, the specification notes that, previously, multiple call centers on a single server had to share a single database, meaning that the data of an individual call center could not be accessed without also accessing the data of every other call center sharing the server. *See* col. 6:59-61. The specification also describes an embodiment where the server permits each call center to have its own distinct database on the server. *See* col. 6:51-52. Necessarily, each such database could be represented as a logical database with its own individual relational table. In that situation, while no single logical database table has been divided into smaller sub-tables, the physical database on the server allows for the data of each call center to be independently accessible. Accordingly, the invention is described broadly throughout the specification, allowing for multiple methods of data accessibility.

Plant’s construction is substantially consistent with the meaning of “partitioned database” as understood by one of skill in the art when read in view of the ‘858 Patent specification. However, Plant’s proposed construction is insufficiently precise and potentially vague in merely specifying “individual data.” As made clear in the specification, data accessibility is “partitioned” between data of a particular call center and data of other call centers. Plant’s construction is of such breadth that it could apply to the individual data of a particular call center. In the context of the ‘858 Patent specification, the construction should, at a minimum, be limited to specify that “individual call center data may be accessed without accessing the data of another call center in the database.”

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<sup>2</sup> The specification also describes that “when a person logs on to the server for administrative purposes, he will be able to look at the call logs associated with his particular call center without looking at the call logs for the several other call centers that are sharing the same server 60.” Col. 6:44-48.



Intrado's proposed construction should be rejected. While the term "partitioned database" has a plain and ordinary meaning of "dividing a logical database, which is viewed as a table, into distinct independent parts such as sub-tables," as Intrado argues, the '858 Patent claims something altogether different. The patent-in-suit claims a "central data manager comprising a server having a database that is partitioned such that a first partitioned portion contains first data..." The plain and ordinary meaning of the term "database" in the context of the '858 Patent claims designates to one of skill in the art not a logical database, but rather, a physical database (i.e. data content in computer data storage). Thus, the patentee is not using the term "partitioned database" within its plain and ordinary meaning.

The claims specifically recite a "[server having a] database," which clearly refers to data in a physical hardware storage device. The claims, in the context of the partitioned database, correspondingly relate to data associated with a call center. In the context of a "partitioned" database structure, the specification also refers to "user interfaces for entering data for each call center 30..." (emphasis added). *See* col. 6:65-66. Based on the specification language, it is clear that what is referenced is a physical database. Intrado's construction, on the other hand, defines the term in regard to database tables instead of data.<sup>3</sup> Such reference contemplates only a "logical" database (i.e., a conceptual view of the data) and not a "physical" database (i.e., data stored in a hardware storage device). Strictly speaking, a physical database does not have tables. However, a logical, conceptual view of a physical database can be represented by a table as demonstrated by Intrado's reliance on the Oracle 8 Guide.<sup>4</sup> Data representing the contents of a logical database table is mapped as addressable locations on a physical hardware data storage device that is part of the server. The mapping establishes the organization of the physical database in accordance with the logical database table as to where data is written and stored on the hardware storage device for later retrieval.

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<sup>3</sup> Intrado confusingly argues that its proposed construction is supported by analogy to case authority construing a "partition of memory" as being a division of memory into separate sections of memory for storing data. *See* Intrado's Responsive Claim Construction Brief at p. 11. Yet, Intrado also relies upon extrinsic evidence directed to a logical database rather than a physical database. *Id.* at 12.

<sup>4</sup> Intrado points to the discussion in "ORACLE 8 The Complete Reference," Exh. G, p. 444 (INT00063441); *See* Intrado's Responsive Claim Construction Brief at p. 11.

Intrado's proposed construction improperly defines "database" purely in regard to a logical view of a partitioned database (i.e., tables). Nowhere in the specification is it described as merely tables. Also, Intrado's proposed construction improperly limits the term to a specific database design methodology that is not described anywhere within the patent specification or specified in the claims. Intrado's proposed construction speaks to a "partitioned database table" and not "partitioned database." As such, Intrado's proposed construction should be rejected.

The '858 Patent specification somewhat complicates arriving at a clear understanding of a proper construction of "partitioned database," particularly in view of its reference to the central data manager storing data on different partitions. *See* col. 3:36-39. Significantly, the patentee made specific reference to this portion of the specification during the reexamination in support of its argument that the partitioned database limitation presented a distinguishing limitation over the prior art. *See* Response to Office Action Dated 9/24/2007 at p. 3. One possibility is that the applicant was making reference to hardware partitioning, wherein a separate data storage device (e.g., a hard disk) is used for data associated with each of the call centers that share the central data manager. However, when this portion is read in conjunction with the specification's description at col. 6:51-52, that each call center may have its own database on the central server of the central data manager, it becomes clear to one of skill in the art that the term "partitioned database" merely means that the data for each call center is individually accessible.

There exist several implementations to realize independent access to individual call center data on a shared server without accessing other call center data. The '858 Patent neither provides nor disclaims the adoption of any particular implementation. Accordingly, as Plant argues and the Court agrees, no specific database partitioning methodology should be read into the claims.

As stated above, the patentee is not using the term "partitioned database" in its plain and ordinary meaning. While a claim term is generally given its "ordinary and customary meaning," that is, "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1312-13. "[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the

context of the entire patent, including the specification.” *Id.* at 1313. “[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Id.* at 1316. The specification need not reveal such a definition explicitly. *See Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1268 (Fed.Cir.2001) (“[A] claim term may be clearly redefined without an explicit statement of redefinition.”). “[W]hen a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term ‘by implication.’” *Id.* at 1271 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996)). This Court is persuaded that such is the case here.

The ‘858 Patent uses the term “partition” in relation to “database” throughout the specification as meaning an organization of call center data in computer data storage that permits the data of an individual call center to be accessed without accessing the data of any other call center.<sup>5</sup> Accordingly, this Court concludes that the patentee acted as his own lexicographer. Consequently, the term “partitioned database” in the claims does not carry its ordinary and plain meaning, as argued by Intrado. Instead, the patentee redefined the term and expresses its meaning in terms of independent data accessibility. That is, data is organized in the database to permit an individual call center’s data to be accessed on a single, shared server without accessing the data of any other call center.

Plant’s proposed construction also incorporates a requirement of database access control to guard against unauthorized users. The question is whether database access control is a feature of the preferred embodiment described in the specification rather than a limitation expressed by the claim language. The specification states that database partitioning allows for privacy of information. *See* col. 6:61-63. Also, the specification separately describes data security that accrues by reason of an ability to have restricted access to data stored in the central data manager, which serves to guard against unauthorized users. *See* col. 3:36-43. Nowhere, however, is there a specific description as to how either database access is

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<sup>5</sup> *See, i.e.*, col. 3:36-45 and col. 6:40 to col. 7:3.

controlled or data security is achieved. One of skill in the art would understand, however, that both database access control and data security are typically implemented via a DBMS interface. The term used in the claims is “database” and not “database system,” which would more clearly indicate both organized data in a hardware storage device and DBMS software running on the server computer.

Plant is correct that the claims do affirmatively recite that the database is partitioned “so as to maintain” privacy of data in the server database. And, as noted above, the specification does expressly indicate that privacy is allowed by database partitioning. Database access control and security is an aspect that is facilitated by means of a DBMS interface.<sup>6</sup>

The claims’ “privacy” recitations, particularly when read in view of the specification, merely identify the resulting benefit of database partitioning, which can be used to one’s advantage. Privacy is achieved by means of implementing database access controls in a way that data cannot be accessed by unauthorized users. Moreover, when the phrase “so as to maintain privacy” is read in the context of “partitioned database,” the phrase reiterates that call center data is organized such that the data of an individual call center can be accessed without accessing the data of another call center sharing the same server.<sup>7</sup> Thus, the term “partitioned database,” when construed in the context of the specification’s description of privacy and the claim’s recitation of “privacy,” indicates that the term refers to both organized data in a hardware storage device and DBMS software running on a server computer. As before, this Court is persuaded that the patentee has again acted as his own lexicographer.

Data security is an issue that goes beyond mere database access control. Data security is an operation that involves more than just partitioning the database to allow for privacy with the inclusion of DBMS user interfaces for controlling database access. Where the specification makes reference to the

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<sup>6</sup> Plant agrees that control of database access requires a DBMS. *See* Plant Equipment Inc.’s Opening Claim Construction Brief at 16.

<sup>7</sup> The term “privacy” has a generally understood meaning of “a state of being free from disturbance by others.” Thus, the “privacy” recitation does not speak directly to user authorization but rather only to data accessibility. Further, the phrase “so as to maintain privacy” indicates a result that follows. The phrase is similar to a “whereby” clause that merely states the results of the limitations in the claim and adds nothing to the substance of the claim. *See, e.g., Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 324 F. 3d 1308, 1319 (Fed. Cir. 2003) (citing *Texas Instruments Inc. v. United States Int’l Trade Comm’n*, 988 F.2d 1165, 1172 (Fed. Cir. 1993)).

facility as being able to “secure the data,” the reference is made within the context of a description of data security.<sup>8</sup> The reference is not made in the context of privacy. Thus, inclusion of the affirmative limitation proposed by Plant that “data cannot be accessed by unauthorized users” is not justified on the basis of the claim’s recitation of “privacy.”

Furthermore, in the specification, the partitioned database structure is characterized as allowing multiple independent call centers to be served from a single server, and it is further characterized as including user interfaces for entering data for each call center. *See* col. 6:63-66. In addition, the specification indicates that with the partitioned database on the server, every call center that shares the server has the ability to add, modify, and delete its own information. *See* col. 6:55-56. To one of skill in the art, the indication is that the patentee is using the term “partitioned database structure” to be inclusive of a DBMS having a data access control. However, such does not necessarily include a data security interface. Thus, as to the limitation “which data cannot be accessed by unauthorized users,” the Court is persuaded that Plant’s proposed construction improperly seeks to import a limitation from the specification.

**All the foregoing being considered, the Court construes “database that is partitioned” and “partitioned database” as:**

**“an organization of call center data in computer data storage together with database management software running on the server, wherein the call center data is organized and made accessible such that the data of an individual call center is accessed without accessing the data of any other call center sharing the server.”**

**B. “first partitioned portion” (Claims 1 and 3)**

Plant’s Construction	Intrado’s Construction
data that may be accessed from a particular portion of a database without accessing other data in the same database, and which data cannot be accessed by unauthorized users	one partition in the database

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<sup>8</sup> *See* col. 3:36-45.

Plaint argues that the construction for “first partitioned database” should remain consistent with the construction for “partitioned database.” Intrado argues similarly that this term should be construed consistent with its construction of “partitioned database” to mean “one partition in the database.”

The Court agrees that the construction of this term should be consistent with the construction of “partitioned database.” Since the Court rejected Intrado’s construction for “partitioned database,” it must also reject Intrado’s construction for “first partitioned database.” Plant’s proposed construction should not include “portion,” which is part of the term being construed. Plant’s proposed construction also fails to observe that “partitioned database” is premised on data organization for individual data access. Further, since a limitation of unauthorized access is included within the “partitioned database” construction, such a limitation is superfluous when applied to “first partitioned portion.” Similarly, inclusion of a limitation that data may be accessed without accessing other data in the same database unnecessarily re-states aspects of “partitioned database.” Accordingly, Plant’s proposed construction for the term “first partitioned portion” must be rejected.

**The Court construes “first partitioned portion” as:**

**“one amount of call center data within the partitioned database (as defined).”**

**C. “the partitioned database being configured to serve the plurality of call centers” (Claims 1 and 3)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
No further construction necessary	the database is divided into partitions by call center

**D. “a database that is partitioned such that a first partitioned portion contains first data associated with a particular one of said call centers” (claim 1) /  
“a database that is partitioned such that a first partitioned portion contains first data associated with a particular one of a plurality of call centers” (claim 3)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
No further construction necessary	a database that is divided into partitions by call center

Plant argues that the above terms require no further construction because they encompass the same concepts as were considered when construing the “partitioned database” terms. Intrado argues that the database has to be divided into partitions according to the call center to which the data pertains. However, Intrado’s construction invites a dispute as to what “divided into partitions” means, seemingly referring to a logical database table that is split into sub-tables to form “partitions.” Because this Court has already rejected that approach, Intrado’s proposed construction here must likewise be rejected.

Intrado’s proposed construction suggests that the “first partitioned portion” must contain only data that is dedicated to a particular call center and not multiple call centers. However, the claim language clearly states that the first partitioned portion “contains” data “associated with” a particular one of the several call centers. The parties have agreed that “associated with” means “identified with or having a connection to.” Consequently, the claim language does not include language that limits a “first partitioned portion” to data that is dedicated to only one call center and has no connection to any other call center. These phrases do not exclude data that is associated with a particular call center but is also found to exist in common with other call centers. Furthermore, nothing in the specification suggests that data useful to one particular call center cannot also be useful to another call center. Such data can be duplicated in the database for access by multiple call centers.

Finally, Intrado’s inclusion of “by call center” in their proposed construction has the effect of construing the language in claims 1 and 3 as if it read “configured to individually serve the plurality of call centers.” As such, Intrado’s construction should be rejected because it impermissibly attempts to rewrite claims 1 and 3.

Plant is correct that the claims under review only require that a particular set of data within the database be associated with a particular call center.<sup>9</sup> The dispute perceived by Intrado is resolved by a proper reading of the claim language and recognition that nowhere is there a limitation that a “first partitioned portion” must contain only data that is dedicated to a single call center and cannot contain data that is common among multiple call centers.

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<sup>9</sup> See Plant Equipment Inc.’s Reply Claim Construction Brief at 7.

**Accordingly, the Court holds that no further construction of either phrase is necessary.**

**E. “a partitioned portion of the database that contains data associated with the related call center” (Claim 3)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
No further construction necessary	a partition containing data that is associated with the call center to which the partition relates

Plant argues that the above term requires no further construction because it encompasses the same concepts as were considered when construing the “partitioned database” terms. Intrado argues that claim 3 first recites “a first partitioned portion [that] contains first data associated with a particular one of a plurality of call centers” and then later recites “contains data associated with the related call center.” Intrado contends that when taken together, these recitations indicate that the partitioned portion must contain data related to a particular call center.

The Court finds that the claim language is clear. The related call center corresponds to the call center referenced in the “selecting a call center” step that immediately precedes the “accessing data” step, which is where the phrase appears. Considering the construction of “first partitioned portion” set forth above and the agreed construction of “associated with,” the Court finds that no clarification is required.

**The Court holds that no further construction is necessary.**

**F. “wide area network” (Claim 1)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
a computer network using a networking protocol, such as TCP/IP, to communicate over geographically separated areas	a communications system connecting geographically separated areas

Plant argues that the specification supports a construction including “a computer network using a network protocol” because it describes the use of a TCP/IP protocol network rather than a communication



network to communicate between the central data manager and the call centers. Intrado argues that the dispute regards only the meaning of “network” and that the term “wide area” is clear. It also argues that the dictionary definition of “network” should be adopted as “a communications network that connects geographically separated areas.”

The Court disagrees with both parties’ proposed constructions. Plant’s use of “computer network” is incorrect because it implies a network of computers. However, the specification indicates that the term “WAN” is used only to designate the communication channels that interconnect the call centers and extend from routers in the central data manager to the router in the call center. Further, the suggested inclusion of an example in a construction – “such as TCP/IP” – is improper. Accordingly, Plant’s proposed construction is rejected.

Intrado supports its construction by relying upon extrinsic evidence. However, the intrinsic evidence must be given priority to determine how the patentee uses the term in the context of the ‘858 Patent. *See Phillips*, 415 F.3d 1303. The specification indicates that any desirable communication technique can be used to connect an incoming call with the destination call centers; however, such indications are made within the context of disclaiming the use of a conventional Public Switch Telephone Network (“PSTN”) in routing incoming calls to the call centers. *See* col. 3:26-31. Further, the specification separately identifies and distinguishes PSTN from WAN. *See* col. 2:16-20. Intrado’s proposed construction is overly broad in this respect and should be rejected.

The specific communication technique identified in the specification is Voice over Internet Protocol (“VoIP”). As one of skill in the art understands, VoIP allows telephone calls to be made over computer networks such as the Internet. VoIP converts analog voice signals into digital data packets and supports real-time, two-way transmission of conversations using TCP/IP. What is being described is the use of a WAN that supports “packet switching.”<sup>10</sup> Packet switching is the recognized alternative to conventional circuit switching used for telephone (voice) networks.<sup>11</sup>

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<sup>10</sup> Packet switching involves packaging data in specially formatted units (called packets) that are typically routed from source to destination using network switches and routers. Each packet contains address information that

**The Court construes this term as:**

**“a telecommunication channel using packet switching to communicate over geographically separated areas.”**

**G. “terminal” (Claims 1, 3, 7, 8, 13, and 14)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
a point in a system or communication network at which a signal may enter or leave	a device for entering information into or receiving information from a computer

Plant argues that the “terminal” described throughout the ’858 Patent is a point where a signal either enters or leaves the network. Plant relies on the specification that describes terminals as being used to receive incoming calls that are interfaced with the WAN, and the central data manager routes calls to the terminals over the WAN. Plant also relies on extrinsic dictionary sources to define “terminal” and support its construction. Intrado argues that because claim 1 specifies that emergency service operators receive incoming calls via the remote terminals, the term “terminal” must refer to equipment used by emergency service operators to receive calls. Intrado further argues that Plant’s proposed construction will incorrectly include all hardware in the network, including routers.

Again, by erroneously looking to extrinsic evidence before considering intrinsic evidence, Plant has reached an improper construction. *See Phillips*, 415 F.3d 1303. Plant essentially begins its proposed construction with extrinsic dictionary definitions for the term “terminal” and then improperly attempts to force portions of the claims and specification to fit into the mold of such dictionary-based constructions.

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identifies the sending computer and intended recipient. Using these addresses, network switches and routers determine how best to transfer the packet between hops on the path to its destination.

<sup>11</sup> *See, i.e., Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340, fn. 2 (Fed. Cir. 2003) (“A “circuit-switched network,” such as the Public Switched Telephone Network, is one in which a connection is established from one user to the other such that the users have exclusive and full use of the circuit until the connection is released. Harry Newton, *Newton’s Telecom Dictionary* 190-91 (5th ed.1992). In contrast, a “packet-switched network,” such as the Internet, is one in which data packets are relayed through various stations on a network. The packets comprising a message may travel along different paths and arrive at different times, but are reassembled in proper sequence at their destination. *Microsoft Press Computer Dictionary* 253 (1991).”).

Plant largely sidesteps the intrinsic context in which the term appears in claim 1 to contend that a “terminal” as used in claim 1 has “its place in the network.”<sup>12</sup> By placing the “terminal” within the WAN, over which an incoming call is delivered, Plant seems to argue that it is a point where a signal (i.e., an incoming call) leaves a network. Claim 1, however, specifies that the WAN is interfaced with a terminal. This clearly and necessarily places the terminal outside the WAN. Thus, by its own literal language, claim 1 indicates that a remote terminal does not constitute a point where an incoming call leaves the WAN. Further, claim 1 specifies that an incoming call is delivered over the WAN “to a particular terminal.” This, too, places a terminal outside the WAN. Finally, in considering the preferred embodiment of Fig. 2 described in the specification, an incoming call is shown leaving the WAN at a router. For each of the foregoing reasons, Plant’s proposed construction should be rejected.

Intrado’s proposed construction essentially characterizes a “terminal” as a computer information input/output device. The ‘858 Patent specification and claim 1 explain how a terminal is used: it is used to enable an emergency service operator to receive incoming calls and dispatch emergency service personnel. As described in the specification in relation to the preferred embodiment of Fig. 2, when an incoming call is presented to a particular call center, a virtual or physical phone will ring. The phones are depicted in Fig. 2 as devices. The specification goes on to describe that each phone represents a call center operator “position” as in a traditional call center.<sup>13</sup> The specification further describes that a person at that position can make an outside phone call from a device by pressing a button.<sup>14</sup> The specification clearly indicates that device is a hardware device, but the specification does not provide any description suggesting that it is necessarily a mechanism (i.e., a keyboard) for entering information into a computer. Claim 1 does, however, specify that an incoming call is delivered over the WAN from the database server to a terminal, which by itself indicates that a terminal is a device for receiving information from a computer (i.e., the database server).

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<sup>12</sup> See Plant Equipment Inc.’s Opening Claim Construction Brief at 23.

<sup>13</sup> See col. 4:59-66.

<sup>14</sup> See col. 5:28-30.

Intrado’s proposed construction erroneously considers the term to be Data Terminal Equipment (“DTE”), which one of skill in the art would understand to be some form of computer keyboard/display screen apparatus.<sup>15</sup> Intrado’s construction is consequently rejected as being inaccurate and unhelpful. Furthermore, like Plant, Intrado follows a methodology of crafting a construction based on dictionary definitions and then showing that the specification is consistent with that construction. This approach is counter to the methodology clearly spelled out by the Federal Circuit in *Phillips*. 415 F.3d 1303.

The language of claim 1 specifying the role of the terminal in the claimed system is sufficient to establish that a “terminal” merely means “communication equipment used to permit a call center operator to accomplish the task for which delivery of an incoming call over the WAN was made.” Intrado essentially points out the same thing by noting that the term is used to refer to the equipment used by emergency personnel to receive calls and dispatch emergency service personnel.<sup>16</sup> Even the dictionary authorities cited by Plant support such a view of the meaning of the term “terminal.”<sup>17</sup>

**The Court construes this term as:**

**“communication equipment used to permit a call center operator to perform the task for which delivery of an incoming call over the WAN was made.”**

**H. “said plurality of remote terminals” (Claim 3)**

Plant’s Construction	Intrado’s Construction
two or more remote terminals	multiple devices for entering information into or receiving information from a computer that is situated at some distance away from the centralized secure facility

<sup>15</sup> See Intrado’s Responsive Claim Construction Brief at 23 where The American Heritage Dictionary is cited as defining “terminal” as “a device, usually having a keyboard and video display, through which data can be entered or displayed.” A DTE is a computer information input/output device.

<sup>16</sup> See Intrado’s Responsive Claim Construction Brief at 23.

<sup>17</sup> See Plant Equipment Inc.’s Opening Claim Construction Brief, Exh. 12, PLNT00089247, (“terminal (1)(B) ...An input/output device capable of transmitting entries to and obtaining output from the system of which it is a part...”).

Plant argues that a “plurality” simply means “two or more,” and because the term “terminal” is construed, there is no further need to construe the term here. Intrado argues its construction of the term “terminal” should be adopted here.

Plant’s construction should be adopted. Plurality does indeed simply mean “two or more” and there is no need to restate the construction of “terminal” here.

**The Court construes this term as:**

**“two or more remote terminals.”**

- I. “each of said incoming calls is delivered over said Wide Area Network to a particular one of said remote terminals by said central data manager based on said associated Automatic Number Information of said incoming call” (Claim 1)**

<b>Plant’s Construction</b>	<b>Intrado’s Construction</b>
No further construction necessary.	the central data manager sends an incoming call over the WAN to a particular remote terminal based on the Automatic Number Information of the call

Plant urges that because “WAN” and “remote terminals” have been construed, there is no need to construe this term. Intrado argues that its proposed construction would be more concise and understandable to a jury.

The Court agrees with Plant that no construction is necessary. Considering this Court’s construction of the terms “WAN” and “remote terminals,” the claim language is clear. Further, Intrado’s construction has the effect of re-writing the claim to require the central data manager to “send an incoming call ... to a particular remote terminal.” Its proposed construction would impose a requirement that the central data manager “direct” delivery of the incoming call to a particular remote terminal. Notably absent in claim 1 is any limitation that an incoming call is directed over the WAN to a particular remote terminal by the central data manager or that the central data manager directly delivers an incoming call to a particular remote terminal over the WAN. Despite Intrado’s argument, the Court finds that there

is no basis to limit the scope of claim 1 to a direct delivery of an incoming call from the central data manager to a particular remote terminal without any intermediate routing of the incoming call.

**The Court holds that no construction is necessary.**

**J. “enabling emergency services operators to receive incoming calls and to dispatch emergency service personnel” (Claim 1) /  
“enabling an emergency service operator at said selected call center to dispatch emergency service personnel” (Claim 3)**

Plant’s Construction	Intrado’s Construction
No construction necessary. Plain and ordinary meaning.	giving emergency services operators the means to receive calls and dispatch emergency service personnel (claim 1) / giving emergency services operators the means to dispatch emergency service personnel (claim 3)

Plant argues that no construction of the term is necessary, while Intrado argues that there is a dispute as to whether the phrases require an operator to dispatch emergency personnel.

Intrado’s proposed construction essentially re-writes claim 1 to include a structural limitation of “means for enabling emergency services operator to receive incoming calls and to dispatch emergency service personnel.” Intrado points out that the specification describes an optional computer-aided dispatch server and mapping server in the central data manager. Intrado would presumably apply its proposed construction as a means-plus-function limitation pursuant to 35 U.S.C. § 112, paragraph 6.<sup>18</sup> However, the “enabling” functionality set forth in claim 1 is a functionality of the remote terminals and not a functionality for the central data manager. There is no basis to adopt Intrado’s proposed construction for the phrase as it appears in claim 1. The adoption of its construction would impermissibly re-write the claim to include a structural limitation that is not set forth in the claim or in any other way invoked by any language in claim 1.

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<sup>18</sup> “An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

The phrase appears in method claim 3 as a “thereby” clause added to the step of “routing the incoming call.” The clause expresses the intended result of the “routing” step. As such, the clause and the disputed phrase are not given any weight as a claim limitation.<sup>19</sup> Further, giving weight to the phrase as a limitation would amount to impermissibly rewriting claim 3 to include an additional step of “dispatching emergency service personnel in response to said incoming call.” Such a step would be openly contrary to the scope of the method set forth in the preamble of “handling incoming emergency services calls having both voice and data signals associated with said calls.”

**Based on the foregoing, the Court holds that no construction is necessary.**

## **V. CONCLUSION**

The Court adopts the constructions set forth in this opinion for the disputed terms of the patent-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

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<sup>19</sup> See *Minton v. Nat’l Ass’n. of Sec. Dealers, Inc.*, 336 F.3d 1373, 1381 (Fed. Cir. 2003) (“The district court was also correct in not giving weight to the “traded efficiently” phrase in the whereby clause of the executing step. A whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited. (citation omitted). That is the case here. The term “efficiently” on its face does not inform the mechanics of how the trade is executed, and nothing in the specification or the prosecution history suggests otherwise. Rather, the term “efficiently” is a laudatory one characterizing the result of the executing step. We therefore hold that the district court correctly declined to give the term the meaning Minton has proposed.”). Cf., *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329 (Fed. Cir. 2005) (“The whereby clause describes a network of users at multiple remote user terminals who are ‘collectively able to concurrently engage in interactive data messaging.’ This capability is more than the intended result of a process step; it is part of the process itself.”).

**So ORDERED and SIGNED this 27th day of April, 2012.**

  
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RODNEY GILSTRAP  
UNITED STATES DISTRICT JUDGE



## APPENDIX TO MEMORANDUM OPINION AND ORDER

The purpose of this Appendix is to further explain the Court’s rationale in reaching its claim construction rulings by providing the following information that contributed to the same. According to *An Introduction to Database Systems*, by C.J. Date, a database is a collection of data that serves as a computerized record keeping system and can be considered to be an electronic file cabinet.<sup>20</sup> The purpose of a database is to permit a user to store and retrieve related information.<sup>21</sup> A database server is a computer and Database Management System (“DBMS”) software that acts as a user interface to the database to service a user’s request for information from the database.<sup>22</sup> According to the ‘858 Patent specification, the ANI/ALI database in question is a “relational” database because the calling party’s ANI relates to the calling party’s ALI.<sup>23</sup> That is, for example, a table of ANI records and ALI information for a call center would appear as:

ANI-1	Name	Address	Police Dept.	Fire Dept.
ANI-2	Name	Address	Police Dept.	Fire Dept.
ANI-3	Name	Address	Police Dept.	Fire Dept.

A relational database has both a “logical” aspect (conceptual tables of rows and columns) and a “physical” aspect (data content in allocated storage areas on the computer data storage hardware).<sup>24</sup> Therefore, a relational database can be discussed in terms of either its *logical* database form or its *physical* database form. The two forms are related in that the content of a “logical” database is mapped

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<sup>20</sup> See, Date, C. J., *An Introduction to Database Systems*, Chapter 1, pp. 2 and 8 (Addison-Wesley 2000).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*, Chapter 3, pp. 58-60.

<sup>24</sup> *Id.*, Chapter 1, p. 14 and Chapter 2, pp. 54-55.

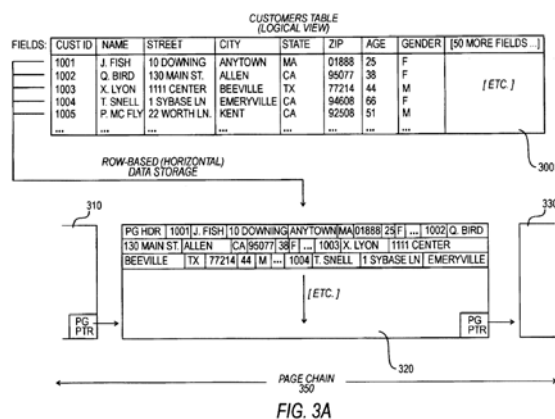
into a “physical” database through a DBMS.<sup>25</sup> In his textbook, C.J. Date notes the common failure to distinguish between “logical database” and “physical database:”

As you can see from the foregoing, the distinction between model and implementation is really just a special case—a very important special case—of the familiar distinction between *logical* and *physical*. Sadly, however, many of today’s database systems, even ones that profess to be relational, do not make these distinctions as clearly as they should. Indeed, there seems to be fairly widespread lack of understanding of these distinctions and the importance of making them. As a consequence, there is all too often a gap between database *principles* (the way database systems out to be) and database *practice* (the way they actually are). In this book we are concerned primarily with principles, but it is only fair to warn you that you might therefore be in for a few surprises, mostly of an unpleasant nature, if and when you start using a commercial product.

Date, C. J., *An Introduction to Database Systems*, Chapter 1, p.14 (Addison-Wesley 2000).

The term “partition” as applied in the context of a “database” typically refers to a division of a *logical* database into distinct parts and not to a *physical* database. This can be done as a matter of design methodology by splitting out selected elements in a single table to form multiple sub-tables.<sup>26</sup> Also, separate smaller databases (each with its own table) can be built. In each case, all the data resides on the same hardware storage device. Another form of database organization is through hardware partitioning,

<sup>25</sup> U.S. Pat. No. 5,794,229 issued August 11, 1998, illustrates the concept of mapping of the logical view to physical data storage:



The actual stored data on the hardware storage device, of course, is in the form of binary logic values representing the characters. This diagram, too, is a conceptual illustration of the physical blocks and pages. The mapping further assumes an unbounded linear address space. See also, Date, C. J., *An Introduction to Database Systems*, Chapter 2, pp. 40-41 and 54 (Addison-Wesley 2000).

<sup>26</sup> See, Date, C. J., *An Introduction to Database Systems*, Chapter 2, p. 57 and Chapter 21, p. 701 (Addison-Wesley 2000); Intrado’s Responsive Claim Construction Brief at 12.

wherein each distinct part of the data resides on its own separate hardware storage device.<sup>27</sup> A reason for database partitioning is to enhance performance of the physical database. The retrieval of data from the hardware storage device is faster when there are fewer records to scan through to identify the requested information.<sup>28</sup>

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<sup>27</sup> This is referred to as a “distributed database system.” See, Date, C. J., *An Introduction to Database Systems*, Chapter 2, pp. 50-54 (Addison-Wesley 2000).

<sup>28</sup> Database access control deals with controlling who is allowed to access what information in a database for data retrieval. The allowed access to information may comprise a limitation to specific database objects (e.g., record types and specific records). Database access controls are set by authorization typically established by the database owner and use dedicated security DBMS interfaces protected by user ID and password authorization. See, Date, C. J., *An Introduction to Database Systems*, Chapter 2, p. 46 (Addison-Wesley 2000).